

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

IN THE CLAIMS:

Claims 1-114 (Cancelled).

115. (Currently amended) In a method of transmitting a message from a sender to a destination address through a server displaced from the destination address and of authenticating the message, the steps at the server of:

receiving the message from the sender,

transmitting the message to the destination address,

receiving at the server an indication from the destination address that the message has been received at the destination address from the server,

~~maintaining the message and additionally providing~~ creating a digital signature of the message for later authentication verification of the message by the server, and

~~transmitting to the sender the message[[,]] and the verification~~ digital signature of the message[[,]] before any authentication of the message for storage by the sender.

116. (Currently amended) In a method as set forth in claim 115, the step at the server of:

~~discarding the message and the verification~~ digital signature of the message after the transmission of the message and the verification digital signature of the message to the sender and before any authentication of the message.

117. (Currently amended) In a method as set forth in claim 116, the steps at the server of:

receiving from the sender a copy of the message and the ~~verification~~ digital signature of the message before any authentication of the message, but after the transmission of the message to the sender,

generating digital fingerprints of the copy of the message from the sender, and the ~~verification of the message received from the sender,~~

comparing the digital fingerprints to the digital signature of the message, and

authenticating the message on the basis of the results of the comparison.

118. (Currently amended) In a method as set forth in claim 116, the steps at the server of:

providing at the server an attachment including ~~the~~ an identity of the sender and ~~the~~ an identity and an address of the server and ~~the~~ an identity and ~~the~~ a destination address of the recipient,

maintaining ~~the~~ an attachment and additionally providing a ~~verification~~ digital signature of the attachment and

transmitting to the sender the attachment and the ~~verification~~ digital signature of the attachment, at the same time as the transmission of the message, and the ~~verification~~ digital signature of the message, to the sender.

119. (Currently amended) In a method as set forth in claim 115, the steps at the server of:

receiving an attachment from the destination address,

maintaining the attachment and additionally providing a ~~verification~~ digital signature of the attachment and

transmitting to the sender the attachment, and the ~~verification~~ digital signature of the attachment for storage by the sender.

120. (Currently amended) In a method as set forth in claim 119, the steps at the server of:

receiving from the sender copies of the message and the attachment and the ~~verification~~ digital signature of the message and the attachment,

generating digital fingerprints of the message and ~~the verification of the message~~ and ~~digital fingerprints of the attachment and the verification of the attachment~~, and

comparing the digital fingerprints of the message ~~and of~~ to the digital signature ~~verification~~ of the message, and

comparing the digital fingerprints of the attachment ~~and to the verification~~ digital signature of the attachment, to authenticate the message and the attachment.

121. (Previously presented) In a method as set forth in claim 116, the steps at the server of:
receiving the message, and the verification of the message, at the server from the sender, and
authenticating the message at the server on the basis of the message, and the verification of the message, received by the server from the sender.

Claims 122-229 (Cancelled).

230. (Currently amended) In a method of authenticating a message provided by a sender and transmitted to a destination server by a second server displaced from the sender and the destination server, the steps at the second server of:

~~providing~~ creating an electronic attachment at the second server including the identity and address of the sender and the identity and address of the second server and the identity and address of the destination server, and

transmitting the electronic attachment from the second server to the sender after the transmission of the message from the second server to the destination server but before any authentication of the message by the second server.

231. (Previously presented) In a method as set forth in claim 230 wherein the electronic attachment transmitted from the second server to the sender includes the address and the identity of intermediate stations receiving the electronic attachment in the transmission of the electronic attachment from the second server to the destination server.

232. (Previously presented) In a method as set forth in claim 230, the steps at the second server of:

providing a verification of the electronic attachment at the second server and
transmitting the verification of the attachment from the second server to the sender, at the time of transmitting the attachment from the second server to the sender.

233. (Previously presented) In a method as set forth in claim 231, the steps at the second server of:

providing a digital signature of the attachment at the second server and
transmitting the digital signature of the electronic attachment from the second server to the sender at the time of transmitting the electronic attachment from the second server to the sender.

234. (Previously presented) In a method as set forth in claim 232, the steps at the second server of:

receiving the electronic attachment, and the verification of the electronic attachment, at the second server from the sender, and
authenticating the electronic attachment at the second server on the basis of the electronic attachment, and the verification of the electronic attachment, received by the second server from the sender.

235. (Previously presented) In a method as set forth in claim 233, the step at the second server of:

authenticating the electronic attachment at the second server on the basis of the electronic attachment, and the digital signature of the electronic attachment, received by the second server from the sender.

236. (Currently amended) In a method as set forth in claim 232, the steps at the second server of:

receiving at the second server the attachment, and the verification of the attachment, from the sender,

providing at the second server digital fingerprints of the attachment, ~~and the verification of the attachment, received at the second server from the sender, and~~

comparing the digital fingerprints and the verification of the attachment ~~at the second server~~ to authenticate the attachment.

237. (Currently amended) In a method as set forth in claim 233, the steps at the second server of:

receiving the attachment, and the digital signature of the attachment, at the second server from the sender,

providing at the second server digital fingerprints of the attachment, ~~and of the digital signature of the attachment, received at the second server from the sender,~~ and

comparing the digital fingerprints to the digital signature of the attachment to authenticate the attachment.

Claims 238-285 (Cancelled).

286. (Previously presented) In a method as set forth in claim 116, including the steps at the server of:

receiving from the sender a copy of the message and the digital signature of the message after the transmission of the message to the destination address but before any authentication of the message, and

processing the message and the digital signature of the message to determine the authentication of the message.

287. (Previously presented) In a method as set forth in claim 115, the steps of:
in the course of transmitting the message from the server to the destination address, providing an exchange of data in the dialog between the server and the destination address relating to the message,

recording at the server at least a portion of the data exchanged in the dialog between the server and the destination address relating to the message, and

transmitting the recorded data to a storage means for subsequent production as proof of delivery of the message to the destination address.

288. (Previously presented) In a method as set forth in claim 287 wherein the data exchanged in the dialog between the server and the destination address relating to the message may be via a selected one of SMTP and ESMTP protocols.

289. (Previously presented) In a method as set forth in claim 287 wherein the exchange of data in the dialog between the server and the destination address relating to the message includes the identification of the server and the destination address and the

identification of the message and an acknowledgement of the receipt of the message by the destination address.

290. (Previously presented) In a method as set forth in claim 288 wherein the data exchanged in the dialog between the server and the destination address relating to the message is used to establish that the message has been received at the destination address.

291. (Currently amended) In a method as set forth in claim 290, wherein the authentication is provided as follows:

generating at the server a digital fingerprint of the message received by the server from the sender, ~~and a digital fingerprint of the digital signature of the message received at the server from the sender,~~ and

comparing the digital fingerprints generated at the server to the digital signature of the message, and

providing an electronic attachment transmitted between the ~~second~~ server and the destination address via a selected one of SMTP and ESMTP protocols, and

providing a dialog between the server and the destination address relating to the message during the transmission of the message from the server to the destination address ~~server~~ so as to establish subsequently that the destination address has received the message, and transmitting the electronic attachment from the second server to the sender.

292. (Previously presented) In a method as set forth in claim 230, the steps of:

providing a dialog between the second server and the destination server relating to the message and the electronic attachment during the transmission of the message from the second server to the destination server, through stages between the second server and the destination server, to establish subsequently that the destination server has received the message, and

storing at least a portion of the dialog between the second server and the destination server relating to the message for subsequent proof of delivery of the message by the second server to the destination server.

293. (Previously presented) In a method as set forth in claim 291 wherein the dialog between the second server and the destination server includes matter relating to the identities of the second server and the destination server and relating to the message.

294. (Previously presented) In a method as set forth in claim 292 wherein the dialog between the second server and the destination server is included in the electronic attachment.

295. (Previously presented) In a method as set forth in claim 293 wherein the dialog between the second server and the destination server includes an acknowledgement by the destination server to the second server that it has received the message.

296. (Previously presented) In a method as set forth in claim 231, the steps of:
providing a dialog between the second server and the destination server relating to the message during the transmission of the message between the second server and the destination server through stages between the second server and the destination server, and
storing at least a portion of the dialog between the second server and the destination server relating to the message for subsequent proof of delivery of the message by the second server to the destination server.

297. (Previously presented) In a method as set forth in claim 234 including the steps of:
providing a dialog between the second server and the destination server relating to the message during the transmission of the message between the second server and the destination server, the dialog between the second server and the destination server relating to the message being provided via a selected one of SMTP and ESMTP protocols,
storing at least a portion of the dialog between the second server and the destination server for subsequent proof of the delivery of the message by the second server to the destination server, wherein
the dialog between the second server and the destination server includes matter relating to the identities of the second server and the destination server and relating to the message and wherein
the dialog between the second server and the destination server is included in the electronic attachment.

Claims 298-300 (Cancelled).